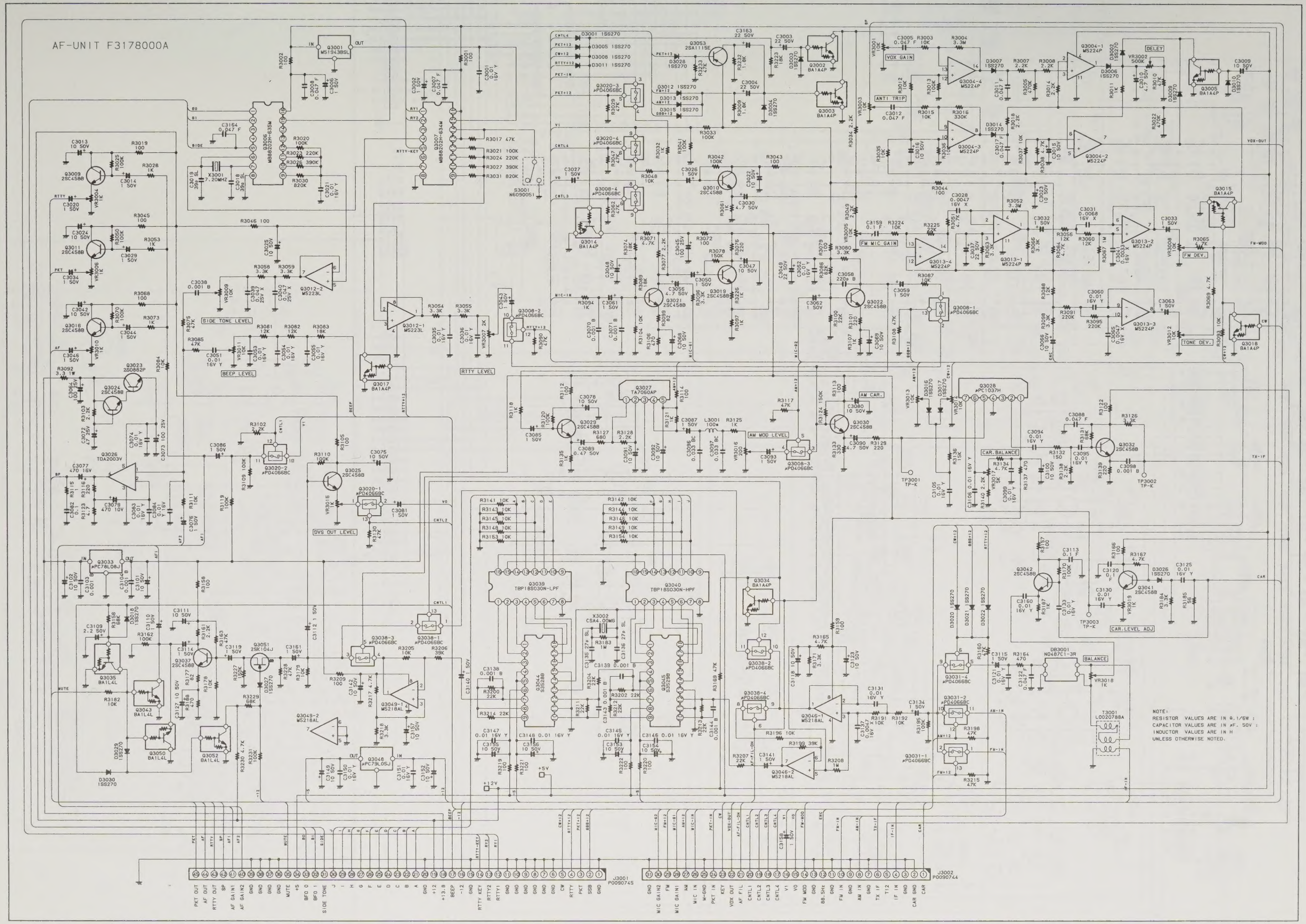
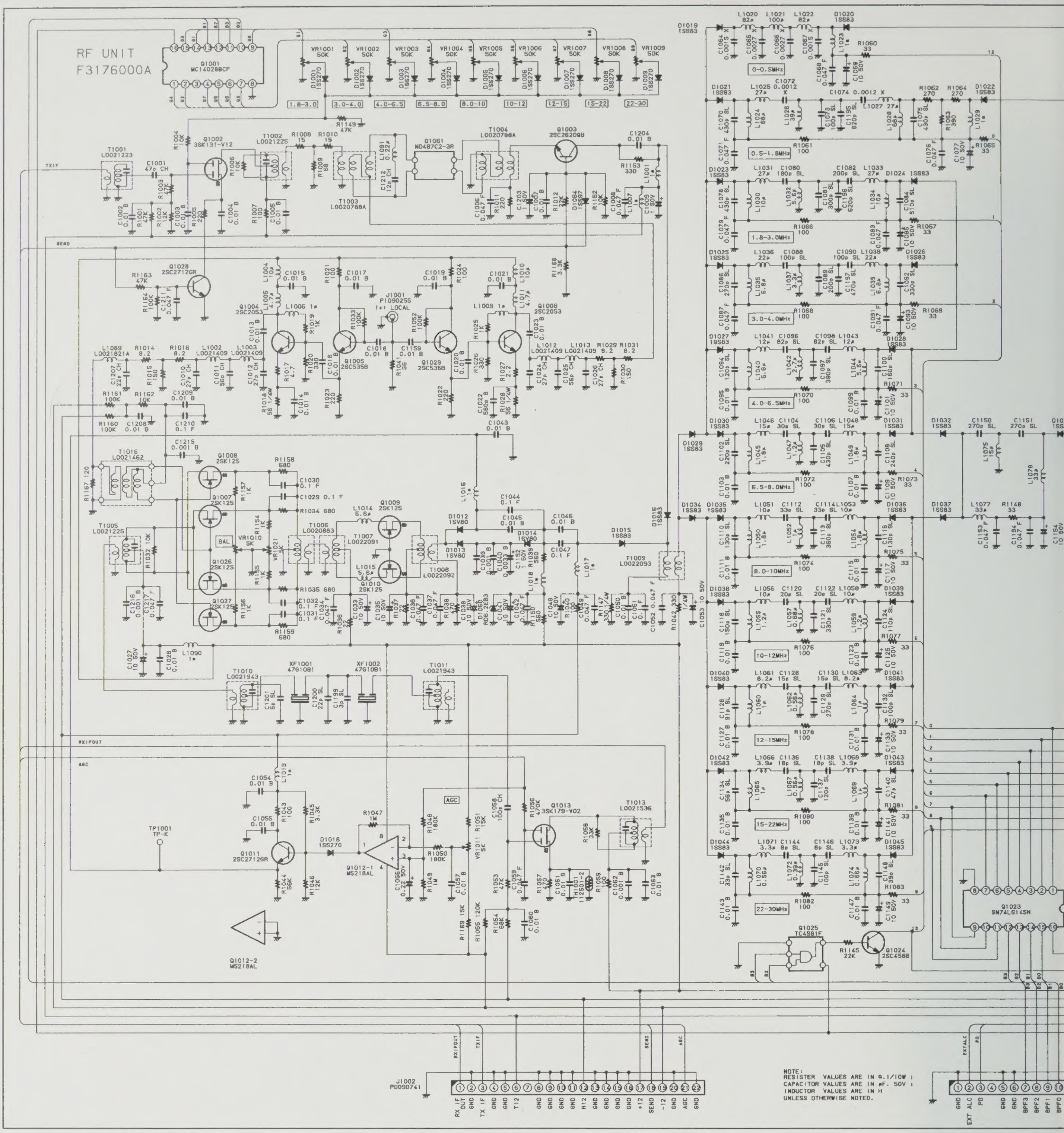
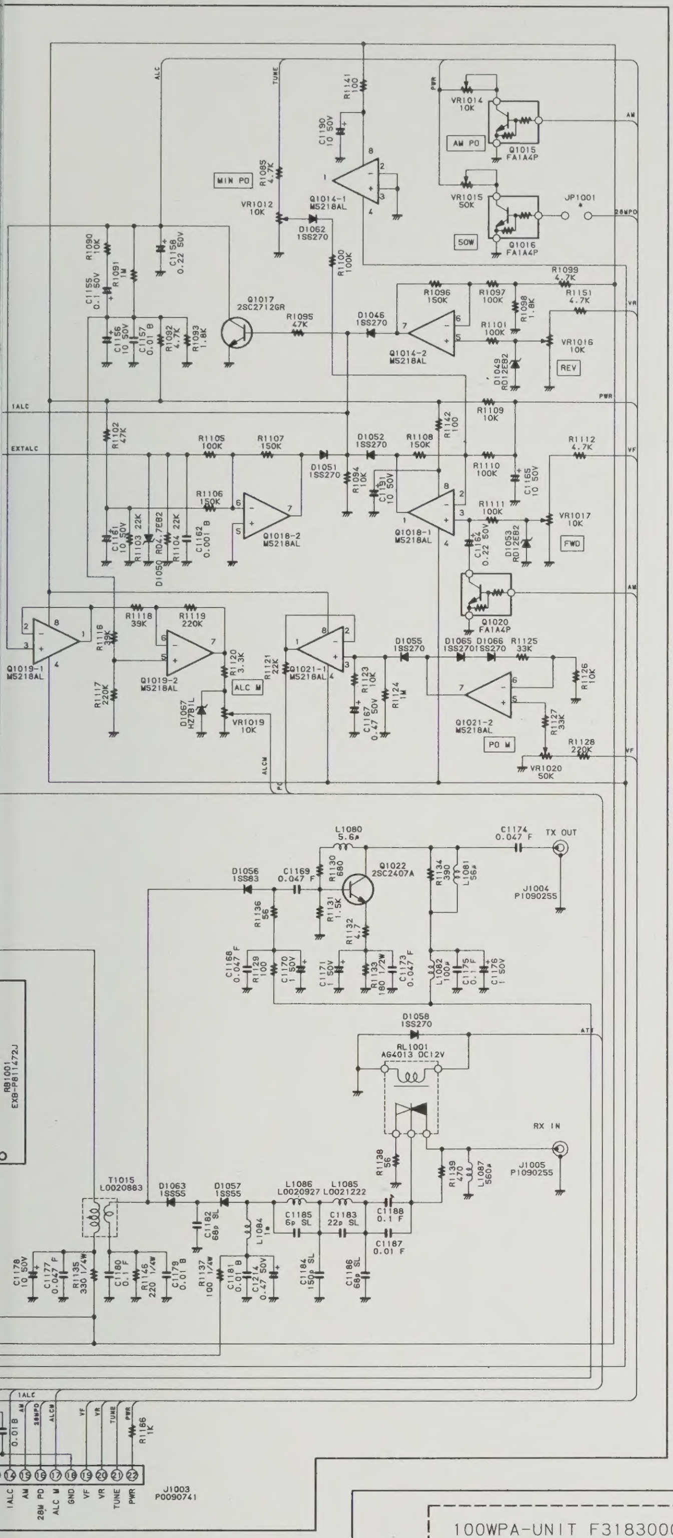
AF-UNIT F3178000A


VOX GAIN
ANTI TRIP
DELEY
FM MIC GAIN
FM DEV.
TONE DEV.
SIDE TONE LEVEL
BEEP LEVEL
RTTY LEVEL
AM CAR.
AM MOD LEVEL
CAR.BALANCE
DVS OUT LEVEL
CAR.LEVEL ADJ
BALANCE
TP3001 TP-K
TP3002 TP-K
TP3003 TP-K
Q3006 M88202H-635M
Q3007 M88202H-634M
Q3039 TBP18S030N-LPF
Q3040 TBP18S030N-HPF
Q3044 S3528B
Q3045 S3529B
Q3027 TA7060AP
Q3028 μPC1037H
Q3026 TDA2003V
Q3001 M51943BSL
Q3033 μPC78L08J
Q3048 μPC79L05J
DB3001 ND487C1-3R
T3001 L0020788A
X3001 7.20MHz
X3002 CSA4.00MG
S3001 N6090051
J3001 P0090745
J3002 P0090744
PKT OUT
AF OUT
RTTY OUT
SP
AF GAIN1
AF GAIN2
GND
MUTE
+5
BFO 0
BFO 1
SIDE TONE
+12
+13.8
BEEP
-12
RTTY KEY
RTTY2
RTTY1
CW
RTTY
PKT
SSB
MIC GAIN2
FM
MIC GAIN1
AM
MIC IN
M-GND
PKT IN
KEY
VOX OUT
AF FIL
CNTL1
CNTL2
CNTL3
CNTL4
V1
VO
FM MOD
88.5Hz
FM IN
AM IN
TX IF
T12
IF IN
CAR GND
CAR

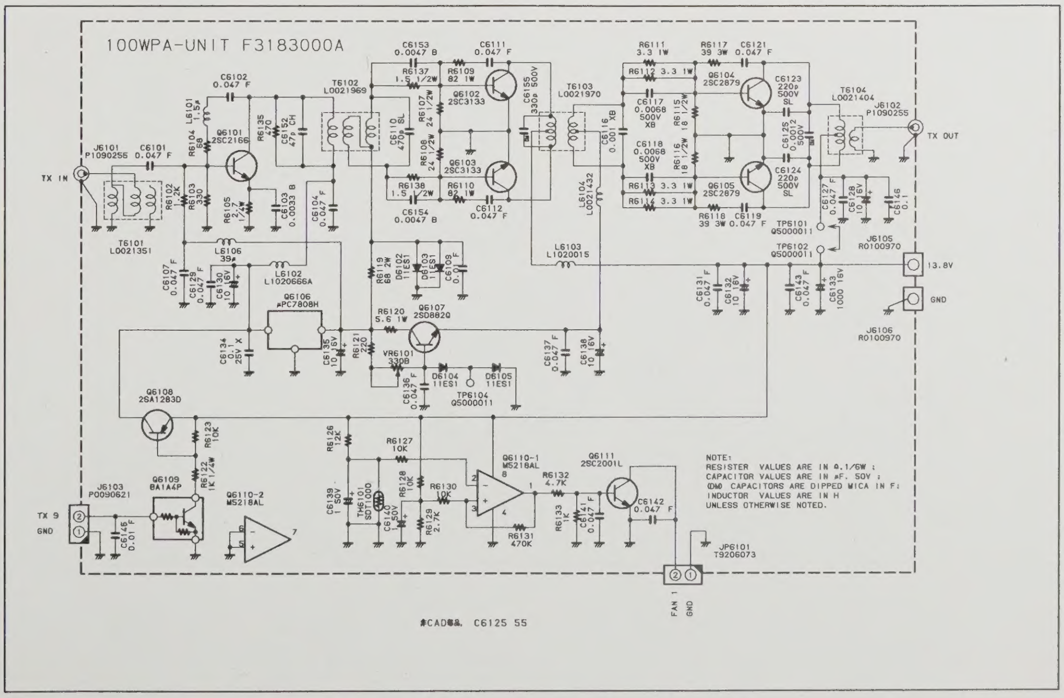
NOTE:
RESISTOR VALUES ARE IN Ω.1/6W ;
CAPACITOR VALUES ARE IN μF. 50V ;
INDUCTOR VALUES ARE IN H
UNLESS OTHERWISE NOTED.


RF UNIT
F3176000A
Q1001 MC14028BCP
VR1001 50K
VR1002 50K
VR1003 50K
VR1004 50K
VR1005 50K
VR1006 50K
VR1007 50K
VR1008 50K
VR1009 50K
D1001 1SS270
D1002 1SS270
D1003 1SS270
D1004 1SS270
D1005 1SS270
D1006 1SS270
D1007 1SS270
D1008 1SS270
D1009 1SS270
1.8-3.0
3.0-4.0
4.0-6.5
6.5-8.0
8.0-10
10-12
12-15
15-22
22-30
R1149 47K
TXIF
T1001 L0021223
C1001 47p CH
Q1002 3SK131-V12
T1002 L0021225
R1008 15
R1010 15
T1003 L0020788A
L1091 1.2µ
C1212 12p CH
D1061 ND487C2-3R
T1004 L0020788A
Q1003 2SC2620QB
C1204 0.01 B
R1153 330
L1001
SEND
Q1028 2SC2712GR
R1163 47K
R1164 10K
C1211 0.047 F
R1166 3.3K
Q1004 2SC2053
L1004 10µ
L1005 4.7µ
C1015 0.01 B
L1006 1µ
R1019 1K
R1021 100
C1017 0.01 B
J1001 P1090255
1st LOCAL
R1033 100K
Q1005 2SC535B
C1018 0.01 B
C1159 0.01 B
R1052 100K
Q1029 2SC535B
C1019 0.01 B
R1024 100
C1021 0.01 B
L1010 10µ
L1009 1µ
L1011 4.7µ
R1025 1K
Q1006 2SC2053
C1023 0.01 B
L1012 L0021409
L1013 L0021409
R1029 8.2
R1031 8.2
R1030 150
L1089 L0021821A
R1014 8.2
R1016 8.2
L1002 L0021409
L1003 L0021409
C1207 22p CH
R1015 150
C1010 27p CH
C1011 56p CH
C1012 27p CH
R1018 56 1/2W
R1017 4.7
R1020 330
R1023 220
R1022 10
R1026 330
R1027 2.2
R1028 56 1/4W
C1022 560p B
C1024 27p CH
C1025 56p CH
C1026 27p CH
R1161 100K
R1162 10K
C1209 0.01 B
R1160 100K
C1208 0.01 B
C1210 0.1 F
C1043 0.01 B
C1215 0.001 B
T1016 L0021462
R1167 120
Q1008 2SK125
R1158 680
C1030 0.1 F
Q1007 2SK125
R1157 1K
C1029 0.1 F
R1034 680
T1005 L0021225
R1032 10K
BAL
VR1010 5K
R1154 1K
VR1021 5K
Q1026 2SK125
R1155 1K
Q1027 2SK125
R1156 1K
R1159 680
R1035 680
C1032 0.1 F
C1031 0.1 F
C1216 0.01 B
C1217 0.047 F
C1027 10 50V
C1028 0.01 B
L1090 1µ
T1006 L0020883
L1014 5.6µ
Q1009 2SK125
T1007 L0022091
L1015 5.6µ
Q1010 2SK125
T1008 L0022092
L1016 1µ
C1044 0.1 F
D1012 1SV80
C1045 0.01 B
D1014 1SV80
C1046 0.01 B
D1013 1SV80
R1039 560
C1047 0.1 F
L1017 1µ
D1015 1SS83
D1016 1SS83
T1009 L0022093
L1018 1µ
R1042 330 1/4W
C1053 10 50V
T1010 L0021943
XF1001 47G1081
XF1002 47G1081
T1011 L0021943
C1201 5p
C1200 22p SL
C1199 3p SL
RXIFOUT
AGC
L1019 1µ
C1054 0.01 B
C1055 0.01 B
R1043 100
R1045 3.3K
TP1001 TP-K
Q1011 2SC2712GR
R1044 56K
R1046 12K
D1018 1SS270
R1047 1M
Q1012-1 M5218AL
C1056 0.22 50V
R1048 180K
R1049 1M
R1050 180K
C1057 0.01 B
R1169 15K
R1055 120K
VR1011 5K
R1051 15K
C1058 100p CH
R1056 470K
Q1013 3SK179-V02
R1053 47K
R1054 68K
C1059 0.047 F
C1060 0.01 B
R1057 10
C1061 0.01 B
H1001 1SS1Z
R1058 33K
R1059 100
C1062 0.01 B
C1063 0.01 B
T1013 L0021536
Q1012-2 M5218AL
J1002 P0090741
RX IF OUT
GND
TX IF
GND
GND
T12
GND
GND
GND
GND
R12
GND
GND
GND
GND
+12
SEND
-12
GND
AGC
GND
D1019 1SS83
L1020 82µ
L1021 100µ
L1022 82µ
D1020 1SS83
C1064 0.0015 X
C1065 0.0027 X
C1066 0.0027 X
C1067 0.0015 X
L1023 1m
R1060 33
C1068 0.047 F
C1069 10 50V
0-0.5MHz
D1021 1SS83
L1025 27µ
C1072 0.0012 X
C1074 0.0012 X
L1027 27µ
R1062 270
R1064 270
D1022 1SS83
C1070 430p SL
L1024 68µ
L1026 39µ
C1073 100p SL
C1205 620p SL
L1028 68µ
C1075 430p SL
R1063 390
L1029 1m
R1061 100
C1071 0.047 F
0.5-1.8MHz
C1076 0.047 F
C1077 10 50V
R1065 33
D1023 1SS83
L1031 27µ
C1080 180p SL
C1082 200p SL
L1033 27µ
D1024 1SS83
C1078 430p SL
L1030 10µ
L1032 5.6µ
C1081 300p SL
C1196 620p SL
L1034 10µ
C1084 510p SL
R1067 33
R1066 100
C1079 0.047 F
1.8-3.0MHz
C1083 0.047 F
C1085 10 50V
D1025 1SS83
L1036 22µ
C1088 100p SL
C1090 100p SL
L1038 22µ
D1026 1SS83
C1086 270p SL
L1035 6.8µ
L1037 3.3µ
C1089 200p SL
C1197 470p SL
L1039 6.8µ
C1092 330p SL
R1068 100
R1069 33
C1087 0.047 F
3.0-4.0MHz
C1091 0.047 F
C1093 10 50V
D1027 1SS83
L1041 12µ
C1096 82p SL
C1098 82p SL
L1043 12µ
D1028 1SS83
C1094 120p SL
L1040 5.6µ
L1042 2.7µ
C1097 390p SL
L1044 5.6µ
C1100 160p SL
R1070 100
R1071
C1095 0.01 B
4.0-6.5MHz
C1099 0.01 B
C1101 10 50V
33
D1030 1SS83
L1046 15µ
C1104 30p SL
C1106 30p SL
L1048 15µ
D1031 1SS83
D1029 1SS83
C1102 220p SL
L1045 1.8µ
L1047 1.2µ
C1105 430p SL
L1049 1.8µ
C1108 240p SL
R1072 100
R1073 33
C1103 0.01 B
6.5-8.0MHz
C1107 0.01 B
C1109 10 50V
D1034 1SS83
D1035 1SS83
L1051 10µ
C1112 33p SL
C1114 33p SL
L1053 10µ
D1036 1SS83
C1110 130p SL
L1050 1.8µ
L1052 1µ
C1113 360p SL
L1054 1.8µ
C1116 130p SL
R1074 100
R1075
C1111 0.01 B
8.0-10MHz
C1115 0.01 B
C1117 10 50V
D1038 1SS83
L1056 10µ
C1120 20p SL
C1122 20p SL
L1058 10µ
D1039 1SS83
C1118 150p SL
L1055 1.2µ
L1057 0.68µ
C1121 330p SL
L1059 1.2µ
C1124 110p SL
R1076 100
R1077
C1119 0.01 B
10-12MHz
C1123 0.01 B
C1125 10 50V
D1040 1SS83
L1061 8.2µ
C1128 15p SL
C1130 15p SL
L1063 8.2µ
D1041 1SS83
C1126 91p SL
L1060 1µ
L1062 0.56µ
C1129 270p SL
L1064 1µ
C1132 100p SL
R1078 100
R1079
C1127 0.01 B
12-15MHz
C1131 0.01 B
C1133 10 50V
D1042 1SS83
L1066 3.9µ
C1136 18p SL
C1138 18p SL
L1068 3.9µ
D1043 1SS83
C1134 56p SL
L1065 1µ
L1067 0.56µ
C1137 120p SL
L1069 1µ
C1140 47p SL
R1080 100
R1081
C1135 0.01 B
15-22MHz
C1139 0.01 B
C1141 10 50V
D1044 1SS83
L1071 3.3µ
C1144 8p SL
C1146 8p SL
L1073 3.3µ
D1045 1SS83
C1142 33p SL
L1070 0.56µ
L1072 0.39µ
C1145 100p SL
L1074 0.56µ
C1148 39p SL
R1082 100
R1083
C1143 0.01 B
22-30MHz
C1147 0.01 B
C1149 10 50V
Q1025 TC4S81F
R1145 22K
Q1024 2SC4588
D1032 1SS83
C1150 270p SL
C1151 270p SL
L1075 15µ
L1078 33µ
D1037 1SS83
L1077 33µ
R1148 33
C1153 0.047 F
C1194 0.047 F
Q1023 SN74LS145N
EXTALC
PO
GND
EXT ALC
PO
GND
GND
BPF3
BPF2
BPF1
BPF0

NOTE:
RESISTER VALUES ARE IN Ω,1/10W ;
CAPACITOR VALUES ARE IN µF, 50V ;
INDUCTOR VALUES ARE IN H
UNLESS OTHERWISE NOTED.


ALC
TUNE
PWR
R1141 100
C1190 10 50V
MIN PO
R1085 4.7K
VR1012 10K
Q1014-1 M5218AL
D1062 1SS270
VR1014 10K
AM PO
Q1015 FA1A4P
AM
VR1015 50K
JP1001
28WPO
50W
Q1016 FA1A4P
R1090 10K
R1091 1M
C1158 0.22 50V
C1155 0.1 50V
C1156 10 50V
C1157 0.01 B
R1092 4.7K
R1093 1.8K
Q1017 2SC2712GR
R1095 47K
R1100 100K
D1046 1SS270
R1096 150K
R1097 100K
R1098 1.8K
R1099 4.7K
R1151 4.7K
VR
R1101 100K
Q1014-2 M5218AL
D1049 RD12EB2
VR1016 10K
REV
IALC
EXTALC
R1102 47K
R1105 100K
R1107 150K
D1051 1SS270
D1052 1SS270
R1108 150K
R1142 100
R1109 10K
R1112 4.7K
VF
R1094 10K
C1191 10 50V
R1110 100K
C1165 10 50V
R1106 150K
Q1018-2 M5218AL
Q1018-1 M5218AL
R1111 100K
VR1017 10K
FWD
C1161 10 50V
R1103 22K
D1050 RD4.7EB2
R1104 22K
C1162 0.001 B
C1164 0.22 50V
D1053 RD12EB2
Q1020 FA1A4P
R1118 39K
R1119 220K
R1116 39K
Q1019-1 M5218AL
Q1019-2 M5218AL
R1120 3.3K
ALC M
R1117 220K
D1067 HZ7B1L
VR1019 10K
R1121 22K
Q1021-1 M5218AL
D1055 1SS270
D1065 1SS270
D1066 1SS270
R1125 33K
R1123 10K
C1167 0.47 50V
R1124 1M
R1126 10K
Q1021-2 M5218AL
R1127 33K
PO M
R1128 220K
VR1020 50K
ALCM
PO
L1080 5.6μ
C1174 0.047 F
TX OUT
D1056 1SS83
C1169 0.047 F
R1130 680
Q1022 2SC2407A
R1134 390
L1081 56μ
J1004 P1090255
R1136 56
R1131 1.5K
R1132 4.7
C1168 0.047 F
R1129 100
C1170 1 50V
C1171 50V
R1133 180 1/2W
C1173 0.047 F
L1082 100μ
C1175 0.1 F
C1176 1 50V
D1058 1SS270
ATT
RL1001 AG4013 DC12V
RX IN
RB1001 EXB-P811472J
R1138 56
R1139 470
L1087 560μ
J1005 P1090255
T1015 L0020883
D1063 1SS55
D1057 1SS55
L1086 L0020927
L1085 L0021222
C1182 68p SL
L1084 1μ
C1185 6p SL
C1183 22p SL
C1188 0.1 F
C1187 0.01 F
C1178 10 50V
C1177 0.047 F
R1135 330 1/4W
C1180 0.1 F
R1146 220 1/4W
C1179 0.01 B
R1137 100 1/4W
C1181 0.01 B
C1214 0.47 50V
C1184 150p SL
C1186 68p SL
R1166 1K
0.01B
IALC
AM
28W PO
ALC M
GND
VF
VR
TUNE
PWR
14 15 16 17 18 19 20 21 22
J1003 P0090741

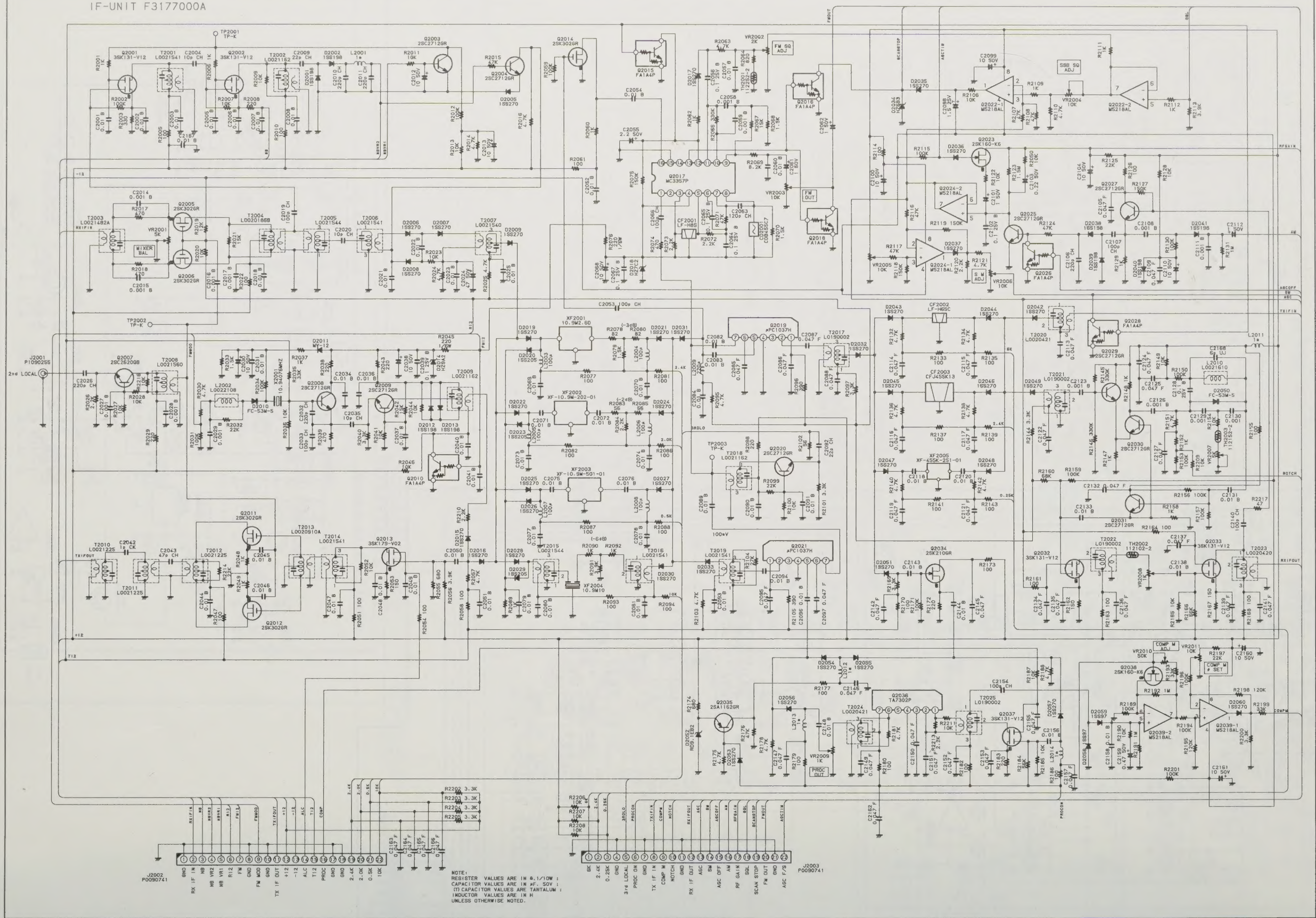
100WPA-UNIT F3183000A


C6102 0.047 F
L6101 1.5μ
R6104 68
Q6101 2SC2166
R6135 470
C6152 47p CH
T6102 L0021969
C6153 0.0047 B
R6137 1.5 1/2W
R6109 82 1W
C6111 0.047 F
Q6102 2SC3133
R6107 24 1/2W
C6110 470p SL
R6108 24 1/2W
Q6103 2SC3133
R6138 1.5 1/2W
R6110 82 1W
C6154 0.0047 B
C6112 0.047 F
C6155 330p 500V
T6103 L0021970
C6116 0.001 XB
L6104 L0021432
R6111 3.3 1W
R6117 39 3W
C6121 0.047 F
R6112 3.3 1W
Q6104 2SC2879
C6117 0.0068 500V XB
R6115 18 1/2W
C6123 220p 500V SL
T6104 L0021404
J6102 P1090255
TX OUT
C6118 0.0068 500V XB
R6116 18 1/2W
C6125 0.001 500V
C6124 220p 500V SL
R6113 3.3 1W
Q6105 2SC2879
R6114 3.3 1W
R6118 39 3W
C6119 0.047 F
C6127 0.047 F
C6128 10 16V
C6146 0.1
TP6101 Q5000011
TP6102 Q5000011
J6105 R0100970
13.8V
GND
J6106 R0100970
TX IN
J6101 P1090255
C6101 0.047 F
R6102 2.2K
R6103 330
R6105 2.7 1/2W
C6103 0.0033 B
C6104 0.047 F
T6101 L0021351
L6106 39μ
L6102 L1020666A
C6107 0.047 F
C6129 0.047 F
C6130 10 16V
Q6106 μPC7808H
R6119 68 2W
D6102 11ES1
D6103 11ES1
C6109 0.047 F
L6103 L1020015
C6131 0.047 F
C6132 10 16V
C6143 0.047 F
C6133 1000 16V
R6120 5.6 1W
Q6107 2SD882Q
C6134 0.1 25V X
C6135 10 16V
R6121 220
VR6101 330B
C6136 0.047 F
D6104 11ES1
D6105 11ES1
TP6104 Q5000011
C6137 0.047 F
C6138 10 16V
Q6108 2SA1283D
R6123 10K
R6122 1K 1/4W
R6126 12K
R6127 10K
R6128 10K
R6130 10K
Q6110-1 M5218AL
R6132 4.7K
Q6111 2SC2001L
C6142 0.047 F
J6103 P0090621
TX 9
GND
C6145 0.01 F
Q6109 BA1A4P
Q6110-2 M5218AL
C6139 1 50V
TH6101 SDT1000
C6140 1 50V
R6129 2.7K
R6131 470K
R6133 1K
C6141 0.047 F
JP6101 T9206073
FAN 1
GND

NOTE:
RESISTER VALUES ARE IN Ω.1/6W ;
CAPACITOR VALUES ARE IN μF. 50V ;
(DM) CAPACITORS ARE DIPPED MICA IN F;
INDUCTOR VALUES ARE IN H
UNLESS OTHERWISE NOTED.

CAD[illegible]. C6125 55

IF-UNIT F3177000A


J2002
P0090741
① GND
② RX IF IN
③ NB
④ NB VR2
⑤ NB VR1
⑥ R12
⑦ FM
⑧ GND
⑨ FM MOD
⑩ GND
⑪ TX IF OUT
⑫ +12
⑬ -12
⑭ ALC
⑮ T12
⑯ PROC
⑰ GND
⑱ GND
⑲ 2.4K
⑳ 2.0K
㉑ 0.5K
㉒ 10K
J2003
P0090741
① 6K
② 2.4K
③ 0.25K
④ GND
⑤ 3rd LOCAL
⑥ PROC ON
⑦ GND
⑧ TX IF IN
⑨ COMP M
⑩ NOTCH
⑪ GND
⑫ RX IF OUT
⑬ AGC
⑭ SW
⑮ AGC OFF
⑯ AM
⑰ RF GAIN
⑱ SQL
⑲ SCAN STOP
⑳ FM OUT
㉑ GND
㉒ AGC F/S
R2202 3.3K
R2203 3.3K
R2204 3.3K
R2205 3.3K
R2206 10K
R2207 10K
R2208 10K
C2163 0.047 F
C2164 0.047 F
C2165 0.047 F
C2166 0.047 F
J2001 P1090255
2nd LOCAL
TP2001 TP-K
TP2002 TP-K
TP2003 TP-K
Q2001 3SK131-V12
Q2002 3SK131-V12
Q2003 2SC2712GR
Q2004 2SC2712GR
Q2005 2SK302GR
Q2006 2SK302GR
Q2007 2SC2620GB
Q2008 2SC2712GR
Q2009 2SC2712GR
Q2010 FA1A4P
Q2011 2SK302GR
Q2012 2SK302GR
Q2013 3SK179-V02
Q2014 2SK302GR
Q2015 FA1A4P
Q2016 FA1A4P
Q2017 MC3357P
Q2018 FA1A4P
Q2019 μPC1037H
Q2020 2SC2712GR
Q2021 μPC1037H
Q2022-1 M5218AL
Q2022-2 M5218AL
Q2023 2SK160-K6
Q2024-1 M5218AL
Q2024-2 M5218AL
Q2025 2SC2712GR
Q2026 FA1A4P
Q2027 2SC2712GR
Q2028 FA1A4P
Q2029 2SC2712GR
Q2030 2SC2712GR
Q2031 2SC2712GR
Q2032 3SK131-V12
Q2033 3SK131-V12
Q2034 2SK210GR
Q2035 2SA1162GR
Q2036 TA7302P
Q2037 3SK131-V12
Q2038 2SK160-K6
Q2039-1 M5218AL
Q2039-2 M5218AL
XF2001 10.9M2.60
XF2002 XF-10.9M-202-01
XF2003 XF-10.9M-501-01
XF2004 10.9M10
XF2005 XF-455K-251-01
CF2001 LF-H8S
CF2002 LF-H6SC
CF2003 CFJ455K13
X2001 10.9475MHZ
MIXER BAL
SSB SQ ADJ
FM SQ ADJ
FM OUT
S M ADJ
PROC OUT
COMP M ADJ
COMP M SET
RXIFIN
TXIFOUT
TXIFIN
RXIFOUT
NOTCH
AGC
AM
SW
AGCOFF
RFGAIN
SQL
FMOUT
AGCTIN
SCANSTOP
PROCON
3RDLO
COMPM
+12
-12
T12

NOTE:
RESISTER VALUES ARE IN Ω.1/10W ;
CAPACITOR VALUES ARE IN μF. 50V ;
(T) CAPACITOR VALUES ARE TANTALUM ;
INDUCTOR VALUES ARE IN H
UNLESS OTHERWISE NOTED.